SECTION 2: SOLVING

Use the square root method.

1. $5x^2 - 7 = 60$	2. $x^2 + 16 = 0$
3. $5x^2 + 9 = 134$	4. $2(x+3)^2 + 12 = 4$

Factor and use the zero product property.

5. $(2x + 8)(x - 5) = 0$	6. $x^2 - 2x + 1 = 0$
7. $x^2 + 6x = 0$	8. $6x^2 + 11x = 10$

Complete the Square.

9. $x^2 - 4x - 12 = 0$	10. $x^2 - 2x - 35 = 0$
11. $x^2 + 6x = 23$	12. $4x^2 - 8x = 40$

Use the Quadratic Formula.

13. $x^2 + 5x - 6 = 0$	14. $2x^2 - 4x + 3 = 0$
15. $2x^2 - x - 4 = 2$	16. $10x^2 + 9 = x$

SECTION 3: GRAPHING

Find the vertex of each quadratic function:

1. $f(x) = (x+2)^2 + 5$	(,)	2. $f(x) = -2x^2 - 3$	(,)
3. $f(x) = (x-1)^2$	(,)	4. $f(x) = 5x^2$	(,)
5. $f(x) = (x+10)(x-2)$	(,)	6. $f(x) = x^2 + 2x + 5$	(,)
7. $f(x) = 2(x-5)(x+3)$	(,)	8. $f(x) = 2x^2 + 8x + 5$	(,)

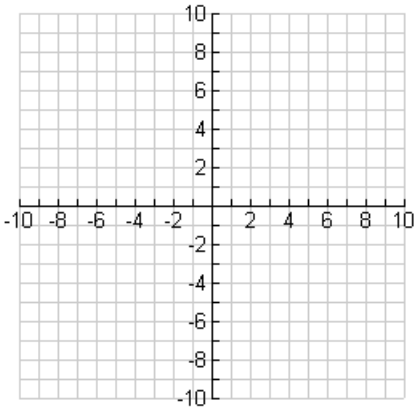
9. $y = -3(x-1)^2 + 10$ Opens Up or Opens Down Stretched, Shrink, Standard

10. $y = (x+4)^2 + 4$ Opens Up or Opens Down Stretched, Shrink, Standard

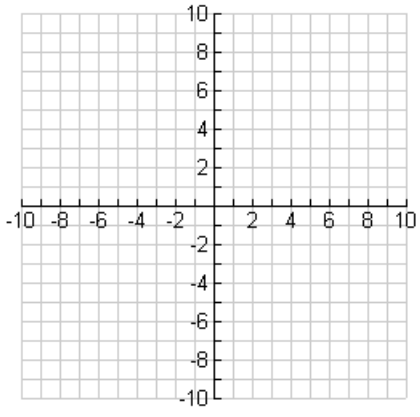
11. Name 3 synonyms for "solution": _____, _____, _____

Graph.

12. $y = 2(x+5)^2 - 3$



13. $y = -\frac{1}{2}(x+5)(x-3)$



14. $y = x^2 + 4x - 6$